



BE IT KNOWN that We, **Falk SCHAAL, Gerhard NESCH,**  
**Josef MÜHLBAUER, Reinhold SCHREFF,** have invented certain new and  
useful improvements in

**STORAGE COMPARTMENT**

of which the following is a complete specification:

## BACKGROUND OF THE INVENTION

The invention relates to a storage compartment. More particularly, it relates to a closable lidded storage compartments, especially for installation in motor vehicles.

A large number of closable lidded storage compartments, especially for installation in motor vehicles, are known from the prior art. The movements and vibrations in motor vehicles often give rise to noise caused by articles rattling in the storage compartment. Such compartments are therefore sometimes produced using a two-component injection-moulding technique in which a hard plastics, which forms the shell, is combined with a softer plastics, which lines the interior of the storage compartment. The soft plastics cushions jolts and at the same time muffles resulting noise, while the hard and rigid plastics provides the necessary stability.

In order to be able to cool the contents of a storage compartment, for example for drinks, such storage compartments are sometimes ventilated by means of a ventilating inlet and a ventilating outlet. In order that undesirable noise and an unpleasant draught caused by escaping air are avoided, a seal has to be provided between the shell and

the lid. Solutions are known in which a sealing ring or the like is inserted as an additional component into the shell or the lid, but this requires considerable manufacturing and assembly work.

### SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a storage compartment of the above mentioned general type which avoids the disadvantages of the prior art.

More particularly, it is an object of the present invention to provide a storage compartment of the soft lining, which has a simple seal between the lid and the shell.

In keeping with these objects and with others which will become apparent hereinafter, one feature of the present invention resides, briefly stated, in a storage compartment having a shell; composed of a hard plastic; a lining composed of a softer plastic and bonded to an interior of said hard plastic; and a lid, said lining having a ring facing said lid and formed as a sealing edge, said lid having a sealing surface seated on said sealing edge.

The softer plastics with which the interior is lined is also used for forming a sealing edge at the upper rim of the lining. As a result, an

additional component for sealing the shell relative to the lid is not required. A sealing surface, on which the sealing edge is seated, is arranged at a corresponding place on the lid.

The softer material used in the inventive storage compartment is preferably a thermoplastic polyurethane.

In order that the sealing edge can be brought reliably into contact with the sealing surface of the lid, in a preferred embodiment the sealing surface is in the form of a sloping surface. As a result, the sealing edge is displaced resiliently to the side when the lid is closed, so that continuous surface-to-surface contact is ensured.

The novel features which are considered as characteristic for the present invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of a closable storage compartment, and

Figure 2 is a sectional view of the storage compartment.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

A storage compartment 1 in accordance with the present invention as shown in Figure 1 has a shell 2 which is closable with a lid 4 that is pivotable about the joint 3. The storage compartment 1 is intended, for example, for installation in a motor vehicle in the region of the central console. The lid 4 is itself likewise in the form of a closable storage compartment. The interior of the storage compartment 1 can be ventilated by way of the air-inlet connection 5 and outlet openings 6 in order to cool, for example, a drinks can (not shown). In order to prevent air escaping between the shell 2 and the lid 4 when the storage compartment 1 is closed, a peripheral sealing edge 7 is arranged on the shell 2 and a peripheral sealing surface 8 is arranged on the lid 4.

Figure 2 shows a sectional view of the storage compartment. The shell 2 and the lid 4 consist of a hard plastics, for example on a polycarbonate basis, and have the necessary stability. The shell 2 has a lining 9 of a softer plastics, for example DESMOPAN, being a thermoplastic polyurethane, which serves to provide cushioning, damping and sound insulation for articles (not shown) moving in the storage compartment 1.

Because they are manufactured in a two-component injection-moulding process, the shell 2 and the lining 9 are bonded to one another.

The lip-shaped sealing edge 7 is also produced from the relatively soft plastics and is formed as part of the lining 9. As the lid 4 is closed, the sealing edge 7 comes into contact with the sealing surface 8 and is thereby displaced resiliently to the side. A continuous, surface-to-surface contact and thus a good sealing action are achieved as a result. Without departing from the inventive concept, it would be possible for the lid also to have an edge-like sealing surface that, on closure, is pressed into a planar rim of the lining as sealing partner.

In addition, the lining 9 is extended over the closure edge 10 in the form of a tolerance-compensating edge 11. This serves for compensating for tolerance-related gaps between the storage compartment 1 and an adjacent component 12.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of constructions differing from the types described above.



While the invention has been illustrated and described as embodied in storage compartment, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims.